

241B. Creative Arts and Humanities: Philosophy in Literature
Spring. 4(4-0)

P: IAH 201.
Philosophy and literature, relationships to each other and to societies in which they were produced. Themes such as the meaning of life, God and the problem of evil, and the nature of knowledge. Authors such as Voltaire, Dostoevsky, Wright, and Atwood examined from a variety of perspectives.

241C. Creative Arts and Humanities: Cultural and Artistic Traditions of Europe
Fall, Spring. 4(4-0)

P: IAH 201.
European artistic and cultural movements and styles, introduced through works of art, music, literature, philosophy and religion. Presented in historical context. Specific eras and works variable by term.

241D. Creative Arts and Humanities: Theater and Society in the West
Spring. 4(4-0)

P: IAH 201.
Artistic creativity seen through the prism of theater. Presented in historical context. Influences from art, literature, music, and religion. Focus on translation of social visions into dramatic art. Plays and themes variable by term.

241E. Creative Arts and Humanities: The Creative Process
Spring of odd-numbered years. 4(4-0)

P: IAH 201.
Philosophical, religious and historical foundations for understanding the process of creation in visual arts, theatre, music and literature. Variations across eras and societies.

241F. Creative Arts and Humanities: Traditions in World Art (I)
Fall. 4(4-0)

P: IAH 201.
Aesthetic qualities of painting, sculpture and architecture within historical contexts across major civilizations. Visual forms in relation to belief systems and musical and literary traditions.

INTEGRATIVE STUDIES IN BIOLOGICAL SCIENCE

ISB

College Of Natural Science

200. History of Life
Fall, Spring, Summer. 3(3-0)

P: Completion of the University mathematics requirement.
Life from its origin to the dawn of human history. Living things as both the products of evolutionary processes and as a major force driving evolution and altering the environment of planet earth.
QP: MTH 109 or MTH 111 QA: ICS 101, NS 125, NS 1824

202. Applications of Environmental and Organismal Biology
Fall, Spring, Summer. 3(3-0)

P: Completion of the University mathematics requirement.
Historical and recent development of ideas about behavior, ecological, and evolutionary processes. Critical evaluation of the use and misuse of human understanding of nature, emphasizing recent findings.
QP: MTH 109 or MTH 111 QA: ICS 121, NS 142

202L. Applications of Environmental and Organismal Biology Laboratory
Fall, Spring, Summer. 1(0-2)

C: ISB 202
Problem solving activities based on observation and the analysis of empirically derived data from environmental and organismal biology.

204. Applications of Biomedical Sciences
Fall, Spring, Summer. 3(3-0)

P: Completion of University mathematics requirement.
Historical and recent development of knowledge about cellular developmental or genetic processes. Critical evaluation of the use and misuse of scientific discoveries in these areas.
QP: MTH 109 or MTH 111 QA: ICS 120

204L. Applications of Biomedical Science Laboratory
Fall, Spring, Summer. 1(0-2)

C: ISB 204
Problem solving activities based on observation and interpretation of selected biological systems in relation to medical science.

206H. Human Biology and Society
Fall, Spring. 3(3-0)

P: Completion of University mathematics requirement.
Conceptual and technological advances in biology. Ethical, legal, social and economic issues which accompany these advances.
QP: MTH 109 or MTH 111

INTEGRATIVE STUDIES IN PHYSICAL SCIENCE ISP

College Of Natural Science

201. Concepts of Reality through Physical Science
Fall, Spring, Summer. 3(3-0)

P: Completion of University mathematics requirement.
Historical and recent development of our understanding of the physical world. Selected topics from the physical sciences, their relationship to one another and to other areas of culture.
QP: MTH 109 or MTH 111 QA: NS 135, NS 155, NS 152

201L. Concepts of Reality through Physical Science Laboratory
Fall, Spring, Summer. 1(0-2)

C: ISP 201
Problem solving activities based on observation and interpretation of selected physical systems.
QA: NS 135, NS 155

203. Geology of the Human Environment
Fall, Spring, Summer. 3(3-0)

P: Completion of University mathematics requirement.
The scientific method in geological studies: its impact on the human environment and history, and on cultural, social, philosophical, and political decisions.
QP: MTH 109 or MTH 111 QA: GLG 200, GLG 201, GLG 306

203L. Geology of the Human Environment Laboratory
Fall, Spring, Summer. 1(0-2)

C: ISP 203
Exercises in the scientific method applied to earth materials and their impact on society.
QA: GLG 200, GLG 201, GLG 306

205. Visions of the Universe
Fall, Spring, Summer. 3(3-0)

P: Completion of University mathematics requirement.
C: ISP 205L.
Role of observation, theory, philosophy, and technology in the development of the modern conception of the universe. The Copernican Revolution. Birth and death of stars. Spacetime Earth. Cosmology and time.
QP: MTH 109 or MTH 111 QA: AST 119, AST 217, AST 229, NS 135, NS 155, NS 1834

205L. Visions of the Universe Laboratory
Fall, Spring, Summer. 1(0-2)

C: ISP 205
Observations of the sky, laboratory experiments, and computer simulations exploring the development of the modern conception of the universe.
QA: AST 119, AST 217

207. World of Chemistry
Fall, Spring, Summer. 3(3-0)

P: Completion of University mathematics requirement.
The language, concepts, models and techniques of chemical science, including atomic theory; nuclear energy; acids; chemicals in air, water, food and biological systems.
QP: MTH 109 or MTH 111

207L. World of Chemistry Laboratory
Fall, Spring, Summer. 1(0-2)

C: ISP 207
Chemical combinations and reactivity with respect to such materials as acids, bases, dyes, foods, and detergents.

209. Physics of the World Around Us
Fall, Spring, Summer. 3(3-0)

P: Completion of University mathematics requirement.
Laws of physics through demonstrations and analyses of every day phenomena. Optics, mechanical systems and electromagnetic phenomena.
QP: MTH 109 or MTH 111

209L. Physics of the World Around Us Laboratory
Fall, Spring, Summer. 1(0-2)

C: ISP 209
Physical phenomena: optics, mechanical systems and electromagnetics.

211. The Structure of Matter
Fall, Spring, Summer. 3(3-0)

P: Completion of University mathematics requirement.
Historical and recent development of knowledge about and models of the fundamental structures of all matter. Physical laws governing the structure of matter.
QP: MTH 109 or MTH 111 QA: PHY 205

INTEGRATIVE STUDIES IN SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES ISS

College Of Social Science

210. Society and the Individual (D)
Fall, Spring, Summer. 4(4-0)

Evolution of human behavior with an emphasis on the individual and society. Family and kinship, social organizations. Societal types, personality, and the life cycle.
QA: S S 201, S S 211, SOC 150

215. Social Differentiation and Inequality (D)
Fall, Spring, Summer. 4(4-0)

Types, causes and consequences of stratification in human societies. Age, class, gender, race and other factors which define social position. Education, occupation, political economy.

220. Time, Space and Change in Human Society (D)
Fall, Spring, Summer. 4(4-0)

Evolutionary, ecological, and spatial theories of adaptation and change. Cultural evolution from prehistoric foraging to the post-industrial age. Continuity and change in the emergence and development of contemporary ways of life.
QA: ANP 250

225. Power, Authority, and Exchange (D)
Fall, Spring, Summer. 4(4-0)

Power, authority, and exchange in organizing societies. Costs and limitations of power. Institutionalization of authority. Systems of exchange: planned vs. market economies.
QA: S S 202

310. People and Environment (I)
Fall, Spring, Summer. 4(4-0)

P: One 200-level ISS course.
Contemporary issues related to the interaction of socio-cultural and ecological systems. Global, regional, national and local environmental problems and responses.
QA: GEO 100

**Descriptions—Integrative Studies in Social, Behavioral, and Economic Sciences
of
Courses**

- 315. Global Diversity and Interdependence (I)**
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Contemporary issues in global political economy. Social forces and competing ideologies in a world context. Global resource distribution and development strategies. National identities and transnational linkages. First and Third World dichotomies.
QA: S S 203, SOC 170
- 320. World Urban Systems (I)**
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Patterns of urbanization in various areas of the world over time. Linkage within and between urban centers. Economic, political and social/behavioral accommodation and adaptation to urban growth and change.
QA: S S 221, S S 222, S S 223, S S 251
- 325. War and Revolution (I)**
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Social conflict, wars and revolutions. Patterns of individual and collective action. Violence and conflict resolution.
QA: S S 243
- 330A. Africa: Social Science Perspectives (I)**
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Comparative study of geography, cultures, politics, and economies of Africa. Diversity and change.
- 330B. Asia: Social Science Perspectives (I)**
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Comparative study of geography, cultures, politics, and economies of Asia. Diversity and change.
- 330C. Latin America: Social Science Perspectives (I)**
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Comparative study of geography, cultures, politics, and economies of Latin America. Diversity and change.
- 335A. National Diversity and Change: United States (N)**
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Racial, ethnic, class, gender, and other forms of diversity in the United States. Systems of dominant-minority relations and forms of prejudice and discrimination. Scope of and responses to group inequalities.
- 335B. National Diversity and Change: Canada (D)**
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Racial, ethnic and other forms of diversity in Canada. French-English schism. Role of non-English/non-French ethnic groups. Policies of multiculturalism.
QA: SSC 252

INTERNAL MEDICINE IM
**Department of Internal Medicine
College Of Osteopathic Medicine**

- 590. Special Problems in Internal Medicine**
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 48 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Osteopathic Medicine. Approval of department.
Students work under faculty direction on an experimental, theoretical, or applied problem.
QA: IM 590

- 620. Directed Studies**
Fall, Spring, Summer. 1 to 30 credits. A student may earn a maximum of 48 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.
Individual or group work on special problems in medicine related to internal medicine.
QA: IM 620
- 650. Medicine Clerkship**
Fall, Spring, Summer. 1 to 20 credits in increments of 2 credits. A student may earn a maximum of 20 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.
Clinical exposure in osteopathic medicine. Program developed to achieve proficiency in motor skills and aptitudes; comprehension of concepts and principles; patient evaluation; diagnosis; management; therapy.
QA: IM 650
- 651. Cardiology Clerkship**
Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.
Intensive experience in bedside diagnosis and care of patients with the more frequently seen cardiac problems.
QA: IM 651
- 652. Gastroenterology Clerkship**
Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.
Inpatient and outpatient clinical gastroenterology. GI diseases. Patient evaluation and management. Behavioral science and patient care.
QA: IM 652
- 653. Oncology and Hematology Clerkship**
Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.
Diagnosis, staging, and treatment methods of solid tumors and other neoplasms. Pharmacology of cytotoxic agents. Issues in nutrition. Behavioral approaches to the terminally ill patient.
QA: IM 653
- 654. Pulmonary Disease Clerkship**
Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.
Evaluation and treatment of patients with common pulmonary diseases including acute and chronic respiratory failure, primary and metastatic lung tumors, various bacterial and non-bacterial pneumonias.
QA: IM 654
- 655. Nephrology Clerkship**
Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.
Clinic and hospital based experience to develop basic skills in evaluation and management of patients with renal disease. Integration of renal physiology and pathophysiology.
QA: IM 655

- 656. Neurology Clerkship**
Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.
Clinical exposure in neurology. Program structure developed to achieve proficiency in motor skills, aptitudes; comprehension of concepts and principles; patient evaluation, diagnosis, management, and therapy.
QA: IM 656
- 657. Emergency Medicine Clerkship**
Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 30 credits in all enrollments for this course.
R: Open only to graduate-professional students in the College of Osteopathic Medicine upon completion of Units I and II.
Acute evaluation and management of patients in the hospital emergency room and other locations.
QA: IM 657

ITALIAN ITL
**Department of Romance and
Classical Languages
College of Arts and Letters**

- 101. Elementary Italian I**
Fall, Spring. 4(4-1)
P: No previous experience in Italian or approval of department.
Practice in using and understanding Italian to develop listening, speaking, reading, and writing skills. Pronunciation, grammar, vocabulary, and cultural topics.
QA: ITL 101, ITL 102
- 102. Elementary Italian II**
Fall, Spring. 4(4-1)
P: ITL 101 or approval of department.
Further practice in using and understanding Italian to develop listening, speaking, reading, and writing skills. Pronunciation grammar, vocabulary, and cultural topics.
QP: ITL 101 QA: ITL 102, ITL 103
- 201. Second-Year Italian I**
Fall. 4(4-0)
P: ITL 102 or approval of department.
Intermediate-level review and development of aural comprehension, speaking, reading, and writing skills. Topics in Italian culture.
QP: ITL 103 QA: ITL 201, ITL 202
- 202. Second-Year Italian II**
Spring. 4(4-0)
P: ITL 201.
Further review and development of aural comprehension, speaking, reading, and writing skills. Topics in Italian culture.
QP: ITL 201 QA: ITL 202, ITL 203
- 290. Independent Study**
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course.
R: Approval of department.
Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.
QA: ITL 299
- 320. Advanced Grammar and Composition**
Fall. 3(3-0)
P: ITL 202.
Composition in a variety of styles and modes. Review of grammar. Extensive practice in writing.
QP: ITL 203 QA: ITL 300
- 330. Italian Culture and Civilization**
Spring. 3(3-0)
P: ITL 202.
Diverse aspects of political, social, economic, intellectual, artistic, and literary life of Italy. Class discussion in Italian of readings, films, television programs, and musical selections.
QP: ITL 203 QA: ITL 300